



Fig. 90. The rock-art panel at Alameleh that shows a scene of camel herding along with Thamudic/Hismaic inscriptions. Note that the effects of cleaning on this panel following vandalism by spray-paint in 2016 (photo by Mohammed Dmoyan).

## WADI RUM: COMMUNITY-BASED ROCK ART AND EPIGRAPHIC RECORDING PROJECT

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The Community-Based Rock Art and Epigraphic Recording project (CB-RAER) is part of the USAID Sustainable Cultural Heritage Through Engagement with Local Communities (SCHEP) Project conducted between March 2017 and May 2018. George Bevan, of the Department of Geography and Planning at Queen's University in Canada, and Kaelin Groom, of the School of Geographical Sciences and Urban Planning at Arizona State University, were co-directors. The goal of the project was four-fold: 1) to employ the Rock-Art Stability Index (RASI) to evaluate the rock-art panels in the Wadi Rum Protected Area (WRPA); 2) to use smart-phones as mobile GIS data-collectors in Wadi Rum to record RASI data; 3) to train local managers in the WRPA and students in both GIS and RASI data-collection; and 4) to improve to improve tourism by training of local guides in the rock-art heritage of the area. The CB-RAER project was undertaken with full awareness of a multi-year, ongoing effort by the Jordanian Department of Antiquities (DOA) to survey all cultural heritage in Wadi Rum. CB-RAER efforts were carefully focused not on surveying and recording new sites, but assessing panels in areas of high tourist traffic using RASI, a mature system developed by a multidisciplinary team from universities across the United States that can be easily learned by non-specialists in a matter of days. A final score out of 100 is the product of individual questions, all scored between 0 and 3, that rate various geological and human factors that impact the overall stability of a rock-art panel. These scores can later be used to guide a management plan for this UNESCO World Heritage site.

Four missions were planned for the project. The first in April 2017 trained the WRPA staff, who form the backbone of the project. They received training in RASI assessments, in mobile data-collection using the ESRI Collector mobile app, as well as editing the data in ArcGIS online. In addition, Dr. Zeyad Al-Salameen of Al-Hussein Bin-Talal University, a specialist in Nabataean archaeology and epigraphy, and Ibrahim Sadaqa, an independent scholar specializing in Thamudic/Hismaic epigraphy, provided training in the ancient history of the region and, most importantly, in the reading of the most commonly encountered scripts in the area (Fig. 90). In August 2017, the mission expanded efforts to create a documentation team made up of local students and guides, who received RASI training, as well as training in the Survey123 mobile app, that, because of its “form-centric” orientation, was more suited to routine RASI data collection. This app was made fully bilingual (English and Arabic) to ease use in the field by non-English speakers (Fig. 91). A third mission in December concerned itself with the training of 15 local guides in the so-called “Rock-Art Ranger” program. This program gave the guides an introduction to the geography and geology of the region, as well as best-practices for ensuring safe tourist interaction with rock-art panels.

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**My Survey**

▼ **Site Setting (Geologically)**

Fissures independent of stone lithification (pressure release, calcrete wedging) \*

☐ Not Present (0)

☐ Present (1)

☐ Obvious (2)

☐ Dominant (3)

Fissures dependent on lithification (bedding, foliations) \*

☐ Not Present (0)

☐ Present (1)

☐ Obvious (2)

☐ Dominant (3)

Changes in textural anomalies (banding, concretions) \*

☐ Not Present (0)

☐ Present (1)

☐ Obvious (2)

☐ Dominant (3)

Rock weakness (Modified Moh's Hardness: 0 = quartz/other three can't scratch; 1 = knife blade

✓

Fig. 91. The RASI collection screens in the Esri Survey123 app running in iOS and showing the fully bi-lingual capability (photo by George Bevan)